A conference of designers at the Ministry for Heavy Engineering (Cont.) 122-2-20/23

of the Uralmashzavod, having a high drilling speed, actually operates at a low rate owing to the idling time spent in replacing the inadequate drilling heads. Comprehensive solutions are essential to ensure high output. The practice by which the designer of the main machinery considers solely his own task without due attention to the production process has led to the situation that only 30% of the operatives in rolling mills are engaged on the main production operations, the rest being occupied on auxiliary work. This problem also exists in the creation of presses of high capacity, where the mechanisation and automation of feeding and removal of blanks, the lubrication of the press tools and other jobs must be dealt with. Overloading with design work and unnecessary drawing work must be avoided to prevent delays in the introduction of new processes. Belated instructions for building and foundation work often cause the delay in operating rolling mill equipment. The favourable experience of power station designers should be borrowed who normally manage to issue building instructions in time owing to the presence of specialist layout groups within the design organisation. Each design office must include groups for long-term project work. The

Card 2/14

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

organisation of design offices must be flexible and must change with the task. Greater freedom of creative work must be given to the most capable and inventive members of the office staff. Such designers must be given small design teams or offices to assist them. The chief designer must ensure these arrangements. A successful example is the creation of a special hydraulic transmission office within the TsNIITMASh in order to embody the proposals of Engineer Tyarasov, who, prior to this arrangement, and in spite of favourable opinions of the MVTU imeni Baumana and several Ministries tried in vain to achieve the accomplishment of the design of his machine. The new office completed this machine in a short period. The machine can be used as a motor or pump in rolling mills, it is explosion-proof and develops high torque in a compact unit. They have many talented people whose name will become widely known as a result of creating such offices. They can no longer tolerate the existing situation when 700 designers are entirely controlled by a single person and the creation of many technical novelties is associated with one single name. Designers must ensure the producibility of their designs. In many new machines steel castings are used which require the erection of new steel

Card 3/14

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

foundries. In the U.S.A., 1.5 million tons of steel castings are produced per annum whilst the U.S.S.R. produces 2.3 million tons, although the United States produces about 3-4 more machines. Soviet industry can draw on successful experience in creating welded and combined welded-cast designs by the method of electric slag welding. Great credit is due in this field to the work of the Novo-Kramatorsk Plant in the Donbass. The Baranul'sk Boiler Plant also uses electric slag welding in producing boiler drums. However, the Uralmashzavod Plant only repeats that which has been done by others without original contribution. Small fillet radii in castings are another cause of serious delays in foundry deliveries, especially at the Uralmashzavod. The designer must consider the heavy labour of those who make the machines and endeavour to lighten it. The Director of Design and Research Work, S.M. Zherbin, read a paper entitled "On the fulfilment of the design work plan for 1956 and on the tasks for 1957". Among the achievements he noted the project of thin gauge sheet mills, type "2 500" including the hot and the cold rolling sheet mills (the former with an output of 3 million tons per annum and the latter, 1.5 million tons), a sheet mill with a

Card 4/14

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

rolling speed of 35 m/sec type "300" strip mill with a rolling speed of 21 m/sec, steam turbines of 150 and 200 MW power designed for 130 atm. and 565 C and 200 MW for 220 atm. and 600 C, steam boilers with an output up to 660 t/h to produce super-critical steam, a gas turbine of 4 000 kW output at a gas temperature of 700 C for the gas pipeline Stavropol'-Moscow, the dragline excavator ЭШ 25/100 with a bucket of 25 m³ capacity and an outrigger length of 100 m, the ЭВГ/65 excavator with a bucket capacity of 35 m³ and a radius of action of 65 m and a number of other projects. Nevertheless, in spite of some achievements, the fulfilment of the plan is unsatisfactory. Delays have occurred mainly in the project dates for rolling mill equipment. The responsibility rests with TsKBNM, Uralmashzavod, NKMZ(D), NKMZ(E) and SKMZ. Certain tasks have not been completed owing to failures of the Kharkov Turbine Plant and the Leningrad Plant of Material Handling Equipment imeni Kirov. Bad planning and bad organisation inside the design offices and lack of preparation for the increase in design staffs or the failure to offer appropriate working conditions to the existing staff are blamed for the delays. The creation of modern machinery demands preparatory experimental and research work to determine the strength of

Card 5/14

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

components and assemblies. This is confirmed by the examples of the first type CKB-150 turbine designed for super-critical steam conditions of the Kuibyshev hydraulic turbines, of gas turbines and rolling mills, all of which required a lengthy scientific and experimental preparation. The help given by scientific research institutes has not been sufficient and must be increased. An important cause of delays is the existing procedure for evolving the design specification, which requires repeated conferences, not always essential. Among new tasks novel rolling mills and tube mills, novel steam boilers and turbines for high and super-critical steam conditions and others were mentioned.

The Deputy Minister for Technical Progress, A.N. Demyanovich, reported on improvements in the organisation of design sections and increases in the productivity of design labour. He gave a detailed analysis of the structure of existing design organisations and indicated ways of design office specialisation. The subject matter and degree of detail of the technical specifications, unnecessary drawing work and rationalisation in equipping the place of work of the designer were dealt with.

Four lectures were concerned with the comprehensive mechanisation and automation of production processes. The rolling mill

Card 6/14

field was covered by the director of the TsKBMM, the Corresponding Member of the Academy of Sciences of the U.S.S.R., A.I. Tselikov. No Russian nor foreign installation exists wherein the complete production cycle is accomplished without the intervention of human labour. Human operatives are still required for the control of individual machines and control desks, the inspection of the quality of the product and sometimes even for production operations. A particularly poor branch is the cleaning of the rolled products and the elimination of defects, which require great physical effort, and also in the material handling to and from the rolling mills. An automatic line for cleaning the rolled product and for finishing of tubes, namely, the cutting of tube ends, hydraulic tube tests and pipe thread cutting, has not yet been created. Great attention should be devoted to the changing-over from intermittent to continuous processes and to the increase in the strip length. The change from thin-gauge sheet to broad strip rolling (up to 1 m and more) about 25 years ago, coupled with increased rolling speeds increased the productivity of labour by a factor of 50 and eliminated much of the heavy work. However, in many of the Russian plants, even so advanced as the Magnitogorsk Metallurgical

A conference of designers at the Ministry for Heavy Engineering. (Cont.)

Combine and the Zaporozhstal, cold strip rolling has not been properly developed, in spite of the great advantages for the user of coiled strip in subsequent operations. Continuous rolling could also be applied to the rolling of sections, particularly of thin-walled "economic" profiles. Among the new rolling mill processes which improve the level of automation, the butt welding of strip ends was mentioned, to increase the total length of the strip. In the practice of TsKBMM activity, such an operation was included in the spiral-wound welded tube mill. It could also be applied to the automation of all tube welding mills working with coiled stock. Continuous process problems have been solved also in the wire drawing industry as a result of developing a new bobbin, which ensures the removal of coils of the desired weight without stopping the drawing process. This solution permitted the TsKBMM to design a wire drawing mill with 60 m/sec drawing speed. Among the prospects of combining several machines into a single production flow line the most promising units are a new tube-making mill with induction heating of the strip edges and subsequent hot reduction and a unit for continuous casting and rolling. The problem of improving the precision of the rolled product can, in a first stage, be solved by developing instruments

Card 8/14

for the contactless measurement of profiles. Later on, a system of automatic resetting of the mill by the desired profile dimensions can be tackled. Automatic lines with comprehensive mechanisation in the heavy press shop must also be created.

The paper by the Candidate of Technical Sciences, B.V. Piven (TsKTI) was devoted to power installations. The automation of boiler installations already covers boilers within the Moscow power system, yielding 77.4% of the total output. Nevertheless, new tasks of comprehensive automation have arisen in connection with the development of steam engineering and the tendency to instal systems consisting of boiler and turbine blocks. At present, the main limitations of comprehensive automation are the absence of the technical means of automatic regulating and of protecting and interlocking devices responding to several parameters not only of the boiler units but also the steam turbines. The shortcomings of some of the auxiliary equipment available hardly require mentioning and must be urgently attended to by the scientific research organisations and the constructors of power equipment. The automation of hydraulic turbine equipment has been completed in 1955 at all hydro-electrical power stations of large and medium power (over 5 000 kW). In the regulating and

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

automation of hydraulic turbine control, they do not lag behind foreign countries. There are, however, some unsolved problems related to the technical means of automation.

Oil drilling installations were treated by the Director of the Oil-drilling Machinery Division at the Uralmashzavod, G.B. Karpetyan. Mining equipment was the subject of the chief designer of the MKMZ(D), I.I. Khudyakov. He concentrated on the properties of excavators and mine hoists in the coal mining and ore mining industries. The excavator division developed a project of a caterpillar excavator, type ЭВГ-3565, with a 35 m^3 capacity bucket and a 65 m radius of action, having a total weight of 2 600 tons. The annual output is 7.5 million m^3 of soil. The usefulness of the new machine is illustrated by the fact that it has made the changeover of several deposits in the Cheremkhovsk and Moscow region coalfields from underground to opencast working profitable. In mine hoists new advanced tower installations with multi-friction pulleys are being developed to accomplish more economically the lifting from large depths, whilst capable of adaption to medium and low depths.

Some papers were devoted to the contents and volume of technical specification and to measures undertaken to ensure the

Card 10/14

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

timely completion of building construction work and of the lay-out drawings required for machinery foundations.

Turbine equipment was treated by the deputy chief designer of the steam turbine section in the Leningrad Metal Works (LMZ), K.A. Spiridonov. Rolling mill equipment was dealth with by the chief designer of the Uralmashzavod, G.L. Khimich. Boiler equipment was the subject of the chief designer of the Podol'sk Engineering Works imeni Ordshonikidse, I.E. Braude, and material handling equipment by the chief designer of VNIIPTMASh, N.I. Medyanov.

Much attention was devoted to the problem of standardisation and unit construction. This problem in the turbine field, the metallurgical equipment field and metallurgical process field was treated by the head scientific assistant of the PSSTI N.I. Dolitskiy, the head of the TsKBMM office, A.D. Epshteyn, and the deputy head of the VPTI Department, L.S. Zhovnerovskiy, respectively. The development of unified drawing office standards for the Ministry of Heavy Engineering was reported by the leading engineer of the Leningrad branch of the VPTI, M.D. Fayershtern. Simplifications in drawing office practice were treated by the chief project engineer of the TsKBMM, S.S. Kraynov.

Card 11/14

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

Great interest was aroused by the lectures dealing with the analysis of the structure of design offices and recommendation for its improvement. The field of metallurgical equipment was covered by the deputy chief designer of the NKMZ(E), A.B.Vernik, and the power equipment field by the deputy chief designer of the hydraulic turbine section of the Leningrad Metal Works, the Corresponding Member of the Academy of Sciences of the U.S.S.R., N.N. Kovlev. The former lecturer noted the versatility of types of machine design in metallurgical equipment. The establishment of OGK NKMZ(E) contains 13 design offices, engaged in 1956 on the design of 425 different types of machines, from the working frame of a rolling mill weighing 300 tons to the working frame of a welding mill weighing 750 kg. All the required gear-boxes, brakes, clutches, hydraulic and pneumatic equipment are designed internally. The same position exists elsewhere and much duplication has taken place. In spite of the great versatility, design offices do not solve the whole set of problems associated with the equipment. In the design rolling mills other organisations take part in some measure, namely, Gipromet, TsKBMM, the head plant of GUMMASh, SKMZ (adjustments) the plants and design

Card 12/14

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

offices of the Ministry of Machine Tool Construction and of the Ministry of Mechanical Engineering, Tyazhpromelektroproyekt, MSPTI, the plants and design offices of the Ministry of the Electrical Engineering Industry and, finally, the plant which has ordered the equipment. Such a system delays the solution of even the simplest problem and reduces the sense of responsibility of project and design staffs. It must be added that the technical specifications often lack competence and do not direct the designers to the optimum solution. A.B. Vernik proposed a new design organisation pattern, based on the principles of specialisation, independence and comprehensiveness of problems set for solution. Two types of specialised central units should be created: 1) central project/design offices (TsPKB) and 2) central design offices (TsKB). The former must include specialised design and manufacturing divisions and must have on their staffs highly qualified production men. Some of the activity of the project institutes should be surrendered to these project offices of the Ministry (see also Vestnik, 1957, No.1. Paper by Vernik, A.B.)

N.N. Kovalev believes that, at present, the basic link in the

Card 13/14

A conference of designers at the Ministry for Heavy Engineering. (Cont.) 122-2-20/23

creation of new machines is theoretical and experimental research. Those organisation engaged on the design of complex, large and long-development machines should be organised on the principle of a "New Designs Fund" to strengthen the divisions of the design office engaged on long-term work. One solution would be the sub-division of the works design office into a project and research office and a current construction office.

The organisation of the working place of the designer was treated by the Director of the TsKBMM Office of the TsNIITMASh, A.A. Ostrinskiy.

The conference was concluded by a speech given by the Deputy President of the Council of Ministers of U.S.S.R., B.A. Malyshev.

AVAILABLE: Library of Congress
Card 14/14

GAVRILOV, S.M., inzh.; MITIN, V.I., inzh.

Commemoration conference of Leningrad scientific and industrial workers. Mashinostroitel' no.9:43-45 S '57. (MLRA 10:9)
(Leningrad--Mechanical engineering)

SOV/117-58-12-28/36

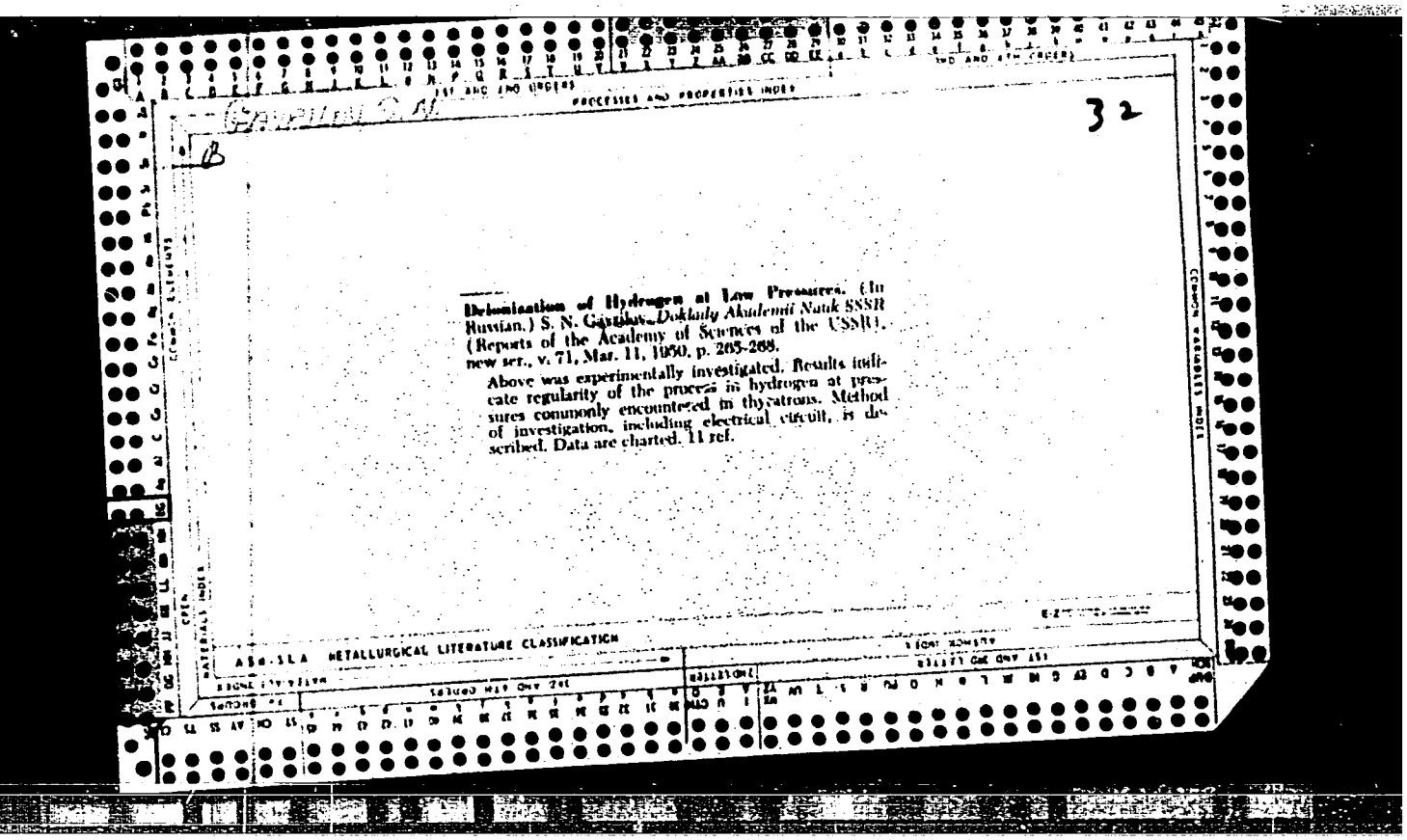
AUTHORS: Gavrilov, S.M., and Sytnik, M.A., Engineers

TITLE: I.I. Chikarev, Fitter-Instrumentbuilder (Slesar'-instrumental'shchik I.I. Chikarev)

PERIODICAL: Mashinostroitel', 1958, Nr 12, pp 37 - 38 (USSR)

ABSTRACT: Information is given on the work of Ivan Ivanovich Chikarev, a Soviet machine builder who designed the following devices: 1) an improved design of a diamond polishing machine; 2) a special machine for twisting drills; 3) a centermeter-coordinator for determining the three-dimensional center in parts; 4) a machine tool for the production of single-digit stamps. At present Chikarev is occupied in designing an automatic self-clamping holder and in developing a method for the production of multi-digit hard-alloy stamps. There are 2 photos and 1 set of diagrams.

Card 1/1



32

Deionization of Hydrogen at Low Pressures. (In Russian.) S. N. Gavrilov. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 71, Mar. 11, 1950. p. 265-268.

Above was experimentally investigated. Results indicate regularity of the process in hydrogen at pressures commonly encountered in thyratrons. Method of investigation, including electrical circuit, is described. Data are charted. 11 ref.

A8d-SLA METALLURGICAL LITERATURE CLASSIFICATION

PRIVALOV, Ivan Ivanovich, 1891- ; TSVETKOV, A.T., redaktor;
GAVRILOV, S.S., redaktor.

[Analytic geometry] Analiticheskaia geometriia. Izd. 18., chastichno perer.i dop. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1953.
360 p. (MLRA 7:2)
(Geometry, Analytic)

Gavrilov, S. S.

PHASE I BOOK EXPLOITATION 16

Yaglom, A. M., and Yaglom, I. M.

Veroyatnost' i informatsiya (Probability and Information) Moscow, GITTL, 1957. 159 p. 30,000 copies printed.

Ed.: Goryachaya, M. M.; Tech. Ed.: Gavrilov, S. S.; Reviser: Moiseyeva, Z. V.

PURPOSE: The book is designed for people without higher mathematical education. The authors' main task was to acquaint the general reader with certain not-too-complicated, but very important mathematical concepts and their application in modern engineering.

COVERAGE: The fundamentals of the classic theory of probability and the general concept of probability in connection with Boolian algebra are presented. The concepts of entropy and information are introduced and their mathematical formulation given. The importance of the concepts of entropy and information is illustrated by certain logical problems. The concepts of a code and of its economy are introduced.

Card 1/4

The binary code is described and its economy studied. The binary code is extended into the code of m signals. Special attention is paid to the Shannon-Fano Code and to Shannon's work in information theory. The fundamentals of the Shannon-Fano Code and its efficiency are demonstrated. The transmission of a message, when communication line disturbances are present is discussed. The concepts of the speed of transmission and the carrying capacity of communication lines are introduced and formulas given. No proofs are given for the formulas and only one individual case given by A. N. Kolmogorov is studied. There are 8 references mentioned in the introduction and in footnotes, 7 of which are Soviet and 1 English. In the introduction the authors thank Academician A. N. Kolmogorov for his valuable advice. They also thank editor M. M. Goryachaya for her remarks concerning the arrangement of the book material.

Card 2/4

TABLE OF CONTENTS:

Card 3/4

AVAILABLE: Library of Congress

Card 4/4

LK/bmd
27 June 1958

GAVRILOV, S.M.

Competition for economy in the use of materials. Avt.dor. 22 no.8:18 Ag '59. (MIRA 12:11)
(Kiev--Road machinery industry)

FROLOV, K.K.; GAVRILOV, S.V.

Wages of automotive transportation workers. Avt. transp. 43 no.9:34-35 S '65. (MIRA 18:9)

1. Starshiy inspektor Gosudarstvennogo komiteta Soveta Ministrov po voprosam truda i zarabotnoy platy (for Frolov). 2. Starshiy inzhener otdela truda i zarabotnoy platy Ministerstva avtomobil'nogo transporta i shosseynykh dorog RSFSR (for Gavrilov).

GAVRILOV, S.Ye., inzh.; POTOTSKIY, G.I., inzh., red.; MATSKEVSKAYA, Ye.M., tekhn.red.

[Handbook for the track inspector] Pamiatka putevomu obkhodchiku. Izd.3., perer. Moskva, Gos. transp. zhel-dor. izd-vo, 1953. 28 p. (MIRA 11:12)
(Railroads--Maintenance and repair)

GAVRILOV, S.Ye.

Holes in rail anchors are unnecessary. Put' i put. khoz. no.1:44 Ja '57. (MLRA 10:4)

(Railroads--Rails--Fastenings)

GAVRILOV, S.Ye.

Reinforced concrete snow fences need to be built. Put' i put. khoz. no. 5:43 My '57. (MLRA 10:6)
(Railroads--Snow protection and removal)

GAVRILOV V.

Kashpir Dolzhen Stat' Obrqztsovym Predpriyatiyem, Goryuchiye Slantsy, 1932, No. 4, 3.

SO: Goryuchiye Slantey #1934-35 TN. 871 G74

GAVRILOV, V.

Construction features and adjustment of the chassis of the SK-3 combine. Tekh. v sel'khoz. 20 no.6:51-56 Je '60. (MIRA 13:10)

1. Taganrogskiy kombaynovyy zavod.
(Combines (Agricultural machinery))

GAVRILOV, V.

New gear box of the SK-3 combine. Tekh. v sel'khoz. 20 no.7:76-78 Jl '60. (MIRA 13:9)

1. Taganrogskiy kombaynovyy zavod.
(Combines (Agricultural machinery))

GAVRILOV, V., inzh.

Against "classicla" systems. NTO 3 no. 1:8-9 Ja '61.
(MIRA 14:2)

1. Taganrogskiy kombaynovyy zavod imeni Stalina.
(Combines (Agricultural machinery))

16.3000

23843

S/020/61/137/006/002/020
C 111/ C 335

AUTHOR: Gavrilov, V.

TITLE: Distortion in quasiconformal mappings

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 137, no. 6, 1961, 1278-1279

TEXT: The author considers the class of the Q-quasiconformal mappings and the classes of the quasiconformal mappings in the mean; see L. Ahlfors (Ref.1: J. Analyse Math., 3, 1, 107 (1953-1954)).

If $w = T(z)$ is a Q-quasiconformal mapping of $|z| < 1$ on $|w| < 1$, $T(0) = 0$, then according to A. Mori (Ref.2: J. Math. Soc. Japan, 8, 2(1956)) it holds the inequality

$$|T(z_1) - T(z_2)| < A\,|z_1 - z_2|^{1/Q} .$$

The proof is based on the estimation of the Teichmüller function

$$\gamma_Q(|z|) < 4\,|z|^{1/Q} .$$

On the other hand, Wang Chuan-Fang (Ref.3: Sci. Record, New Ser., 4, 5, 329 (1960)) obtained

Card 1/4

Distortion in quasiconformal ...

23843
S/020/61/137/006/002/020
C 111/ C 333

$[redacted](z)| \leq 4^{1-1/Q} |z|^{1/Q}$.

By combination it follows

$$\varphi_Q(|z|) \leq 4^{1-1/Q} |z|^{1/Q}$$

and the improved theorem of M. A. Lavrent'yev.

Theorem: If $w = T(z)$ is a Q-quasiconformal mapping of $|z| < 1$ on $|w| < 1$, $T(0) = 0$, then for arbitrary points z_1, z_2 from $|z| < 1$ it holds:

$$16^{-Q+1} |z_1 - z_2|^Q \leq |T(z_1) - T(z_2)| \leq 16^{1-1/Q} |z_1 - z_2|^{1/Q} . \quad (1)$$

Neither the order nor the constant in (1) can be improved.

Theorem 1: For a Q-quasiconformal mapping of $|z| < 1$ onto itself, the image of a path non-tangential to the unit circle which terminates in a point on the unit circle remains a non-tangential path to the

Card 2/4

Distortion in quasiconformal . . . [redacted] C 111/ C 333

unit circle; see J. Jenkins (Ref.4: J. Ration. Mech. and Analysis, 5, 2, 335 (1956)), while the corresponding angles α and β between these paths and the unit circle are connected by the inequality

$$(4\pi)^{-q+1}\left(\frac{\pi}{4}\right)^{q}\alpha^{q} < \beta < (4\pi)^{1-1/q}\left(\frac{4}{\pi}\alpha\right)^{1/q} \qquad (2)$$

in which the exponential order with the exponent $1/q$ is exact.

The author considers a mapping $\zeta = \zeta(z)$ of the class $Q_n(K)$ of Ahlfors (Ref.1). Let $\overline{Q}_n(K)$ be the closure of the class $Q_n(K)$ relative to the uniform convergence on the compact subsets in $|z| < 1$.

Theorem 2: If $\zeta = \zeta(z) \in \overline{Q}_n(K)$ for $n > 1$, then for arbitrary points z_1, z_2 from $|z| \leq \rho$, $0 \leq \rho < 1$ there exists a constant B depending on ρ and n such that it holds

Card 3/4

Distortion in quasiconformal . . . S/020/61/137/006/002/020
C 111/ C 333

$$\left[\left|\ln\frac{1}{|\zeta_1-\zeta_2|}\right|\right]^{-(n-1)} < B\left[\left|\ln\frac{1}{|z_1-z_2|}\right|\right]^{-n} \qquad (3)$$

where $\zeta_i = \zeta(z_i)$, $i = 1,2$.

The author thanks A. J. Markushevich for the guidance and B. V. Shabat for his interest.

There are 4 non-Soviet-bloc references. The four references to English-language publication read as follows: L.Ahlfors, J. Analyse Math., 3, 1, 107 (1953-1954); A. Mori, J. Math. Soc. Japan, 8, 2 (1956); Wang Chuan-Pang, Sci.Record, New.Ser., 4, 5, 329 (1960); J. Jenkins, J. Ration. Mech. and Analysis, 5, 2, 335 (1956).

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

PRESENTED: December 2, 1960, by J. G. Petrovskiy, Academician
SUBMITTED: December 1, 1960

Card 4/4

GAVRILOV, V. [Harvylov, V.]; KUZYAYEV, Kh. [Kuziaiev, Kh.]; MALISHEVSKAYA, L. [Malishevs'ka, L.]; PLYASHNIK, O. [Pliashnyk, O.]

People and works of science. Nauka i zhyttia 11 no.8:19-21 Ag '61. (MIRA 14:12)

(Ukraine--Research)

GAVRILOV, V.; MARKTSEV, V., instruktor

Principle of public participation in the work of financial organs. Fin. SSSR. 23 no.1:53-56 Ja '62. (MIRA 15:2)

1. Nachal'nik shtatnogo otdela Kuybyshevskogo gorodskogo finansovogo otdela (for Gavrilov). 2. TSentral'nyy komitet profsoyuza rabotnikov gosuchrezhdeniy (for Marktsev).
(Finance)

GAVRILOV, V., kand.tekhn.nauk

Work organization of seamen on ships belonging to the fleet of the future. Mor. flot 22 no.2:13-15 F '62. (MIRA 15:4)

1. Starshiy mekhanik teplokhoda "Abakanles".
(Merchant seamen)

BORBLIK, I. G.; GAVRILOV, V. A.; SOKOLOV, A. M.

Blast Furnaces

Organizing the work of lining blast furnaces with carbon blocks. Stroi. prom. 31, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

GAVRILOV, V., inzh.; CHILIKOV, L., inzh.; ADAMYAN, S., inzh.

Industrial furnaces built of large blocks. Stroitel' no.12:4-5 D '57. (MIRA 11:2)
(Chelyabinsk--Furnaces) (Tiflis--Furnaces) (Building blocks)

GAVRILOV, V.

Technological reorganization of railroad transportation. NTO 2 no.5:10-14 My '60. (MIRA 14:5)

1. Zamestitel' ministra putey soobshcheniya SSSR.
(Railroad engineering)

GAVRILOV, V.

Distortion in quasi-conformal mappings. Dokl.AN SSSR 137 no.6: 1278-1279 Ap '61. (MIRA 14:4)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova. Predstavleno akademikom I.G.Petrovskim.
(Conformal mapping)

GAVRILOV, V.

Limits to the sequences of points of normal meromorphic functions. Dokl.AN SSSR 138 no.1:16-17 My-Je '61. (MIRA 14:4)

1. Moskovskiy gosudarstvenyy universitet im. M.V.Lomonosova. Predstavleno akademikom I.G.Petrovskim.

(Function, Meromorphic) (Sequences (Mathematics))

GAVRILOV, V. [Havrylov, V.], inzh.

Automation is the technology of communism. Nauka i zhittia 11 no.10:9-13 O '61. (MIRA 15:1)
(Automation)

GAVRILOV, V., kand. tekhn. nauk

Performance of a marine diesel engine with a variable-regime fuel-flow regulator. Mor. flot 25 no.4:25-26 Ap '65.
(MIRA 18:6)

1. Starshiy inzh. inspektor Registra SSSR.

USSR/Meteorology - Visibility May/Jun 48
Meteorological Instruments

"V. V. Sharonov's Diaphanoscopes," V. A. Gavrilov

"Meteorol i Gidrol" No 3, pp 59-62

Observations in summer and fall 1947 with 1947 models of DSh-2 type diaphanoscope revealed considerable discrepancies between actual range of visibility and that indicated by diaphanoscopes, due to technical defects in production of scales. Gavrilov warns that forthcoming distribution of several hundred of these instruments to the

[redacted] 162T85

USSR/Meteorology - Visibility (Contd) May/Jun 48

hydrometeorological network is completely inadmissible, as they will give high values for range of visibility. Submitted 23 Mar 48.

[redacted] 162T85

GAVRILOV, V. A.

GAVRILOV, V. A.

Berezkin, Vladimir Aleksandrovich, 1887-1949

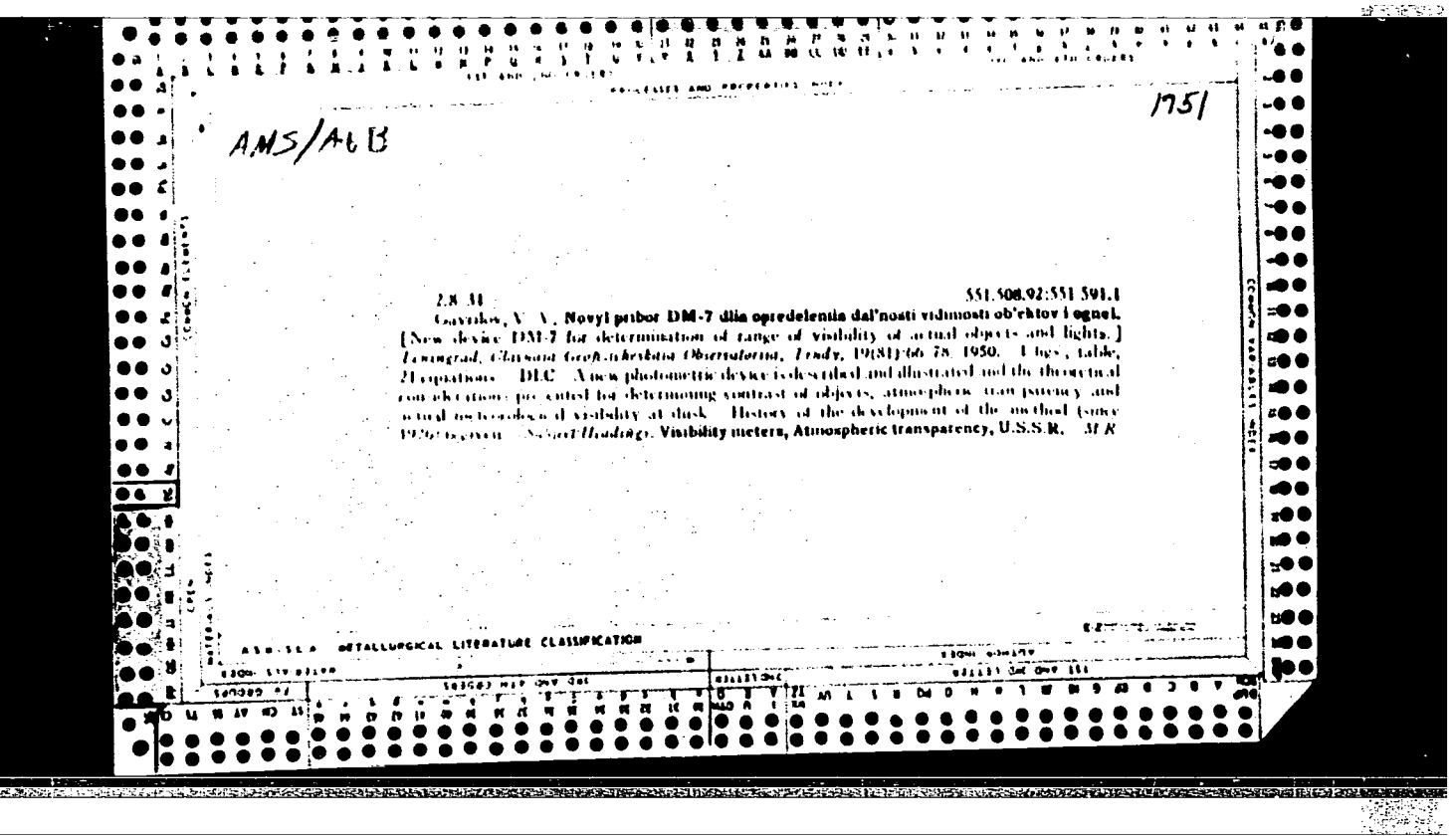
Vladimir Aleksandrovich Berezkin. Met. i gidrol. no. 3, 1949.

Monthly List of Russian Accessions, Library of Congress. November 1952. UNCLASSIFIED.

GAVRILOV, V. A.

28958. GAVRILOV, V. A. O Polyarizatsii Sueta U Atmosfere. Priroda, 1949, No. 9, s. 8-14--Bibliogr: 9 Nazv.

SO: Letopis' Zhurnal'nykh St.tey, Vol. 39, Moskva, 1949



1751

AMS/AGB

2.8.31 551.508.92:551.591.1

Gavrilov, V. A., **Novyi pribor DM-7 dlia opredeleniia dal'nosti vidimosti ob'ektov i ognei.** [New device DM-7 for determination of range of visibility of actual objects and lights.] *Leningrad, Glavnaia Geofizicheskaia Observatoriia, Trudy*, 19(81):66-78. 1950. 1 figs., table, 21 equations. DLC A new photometric device is described and illustrated and the theoretical considerations pertinent to determining contrast of objects, atmospheric transparency and actual meteorological visibility at dusk. History of the development of the method (since 1926) is given. — *Author Heading*: **Visibility meters, Atmospheric transparency, U.S.S.R.** *MR*

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GAVRILOV, V.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 626 - I

BOOK

Call No.: AF643367

Author: GAVRILOV, V.

Full Title: LIGHT PHENOMENA IN THE ATMOSPHERE

Transliterated Title: Svetovyye yavleniya v atmosfere

PUBLISHING DATA

Originating Agency: None

Publishing House: State Publishing House of Cultural and Educational Literature

Date: 1952 No. pp.: 93 No. of copies: 50,000

Editorial Staff

Scientific Editor: Prof. I. A. Khvostikov

PURPOSE: To present to the general public in popular form a description of light phenomena in the atmosphere on the contemporary scientific level.

TEXT DATA

Coverage: The book includes general information on the composition and properties of the atmosphere and its layers, rainbow, rings about the sun and moon, mock-suns, mirages, diffraction and scattering of light in the atmosphere, color of the sky, twilight, light phenomena in the upper layers of the atmosphere, mother-of-pearl and noctilucent clouds.

No. of References: None

Facilities: None

1/1

GAVRILOV, V., podpolkovnik

Party concern for fire training. Komm. Vooruzh. Sil 46 no.19:27-31 O '65. (MIRA 18:12)

GAVRILOV, V.

The more complex, the more active. Voen. znan. 42 no.1:24-25 Ja '66. (MIRA 19:1)

USSR/Geophysics - Visibility Nov/Dec 53

"Some Important Problems in the Study of Visibility," V.A. Gavrilov, Main Geophys Obs im A.I. Voyeykov

Iz Ak Nauk SSSR, Ser Geofiz, No 6, pp 546-560

Explains some results of an investigation of the laws governing the visual perception of landscape objects.. Clarifies the deficiencies of the concept of photometric contrast for the characteristics of visual perception, and proposes a relation convenient for these purposes, which is called the coef of visibility. Analyzes the qualtiy and failings of existing instrumental methods for detg the

273T86

transparency of the atm. Cites the following related works of V.V. Sharonov: 'Vidimost' Dalekikh Predmetov i Ogney (Visibility of Distant Objects and Fires)', Moscow-Leningrad, Voyenmor-izdat (Navy Press), 1944, and 'Izmereniye i Raschet Dal'nosti Vidimosti Dalekikh Predmetov (Measurement and Calculation of the Distance of Visibility of Distant Objects), Moscow-Leningrad, Gostekhizdat (State Tech Press), 1947. Also cites his own earlier work: "The New Instrument DM-7 for Determining the Visibility of Distant Objects and Fires," Trudy Glavnoy Geofizicheskoy Observatorii, No 19, 1950.

GAVRILOV, V.A.

"Instrument Determination of Visibility Limit of a Distant Real Object" Tr. Gl. Geofiz. Observ., No 42, 1953, 69-83

Description of design of photometric equipment giving an operational method of measuring all parameters determining the visibility threshold of real objects, free of effects of color brightness, shape, and background. (RZhFiz, No 10, 1955)

GAVRILOV, V. A.

FEDOROV, Ye.Ye., professor; PREDTECHENSKIY, P.P.; BUCHINSKIY, I.Ye.; SEYANINOV, G.T., professor; BOSHNO, L.V.; ALISOV, B.P.; BIRYUKOV, N.N.; GAL'TSOV, A.P.; GRIGOR'YEV, A.A., akademik; EYGENSON, M.S., professor; MURETOV, N.S.; KHROMOV, S.P.; BOGDANOV, P.N.; LEBEDEV, A.N.; SOKOLOV, V.N.; YANISHEVSKIY, Yu.D.; SAMOYLENKO, V.S.; USMANOV, R.F.; CHUBUKOV, L.A.; TROTSENKO, S.Ya.; VANGENGEYM, G.Ya.; SOKOLOV, I.F.; STYRO, B.I.; TEMNIKOVA, N.S.; ISAYEV, E.A.; DMITRIYEV, A.A.; MALYUGIN, Ye.A.; LIEDEMAA, Ye.K.; SAPOZHNIKOVA, S.A.; RAKIPOVA, L.R.; POKROVSKAYA, T.V.; BAGDASARYAN, A.B.; ORLOVA, V.V.; RUBINSHTEYN, Ye.S., professor; MILEVSKIY, V.Yu.; SHCHERBAKOVA, Ye.Ya.; BOCHKOV, A.P.; ANAPOL'SKAYA, L.Ye.; DUNAYEVA, A.V.; UTESHEV, A.S.; RUDNEVA, A.V.; RUDENKO, A.I.; ZOLOTAREV, M.A.; NERSESYAN, A.G.; MIKHAYLOV, A.N.; GAVRILOV, V.A.; TSOMAYA, T.I.; DEVYATKOVA, A.M.; ZAVARINA, M.V.; SHPETER, S.M.; BUDYKO, M.I., professor.

Discussion of the report (in the form of debates) [of the current state climatological research and methods of developing it]. Inform. sbor.GUGMS no.3/4:26-154 '54. (MLRA 8:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Fedorov). 2. Glavnaya geofizicheskaya observatoriya im. A.I.Voeykova (for Predtechenskiy, Lebedev, Yanishevskiy, Isayev, Rakipova, Pokrovskaya, Orlova, Rubinshteyn, Budyko, Shcherbakova, Anapol'skaya, Dunayeva, Rudneva, Gavrilov, Zavarina). 3. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (for Buchinskiy).

(Continued on next card)

FEDOROV, Ye.Ye., professor; PREDTECHENSKIY, P.P., and others.

Discussion of the report (in the form of debates) [of the current state climatological research and methods of developing it]. Inform. sbor. GUGMS no.3/4:26-154 '54. (Card 2) (MIRA 8:3)

4. Vsesoyuznyy institut rastenievodstva (for Sal'yanikov, Rudenko). 5. Bioklimaticheskaya stantsiya Kislovodsk (for Boshno). 6. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova (for Alisov). 7. Ministerstvo putey soobshcheniya SSSR (for Biryukov). 8. Institut geografii Akademii nauk SSSR (for Gal'tsov, Grigor'yev). 9. Geofizicheskaya komissiya Vsesoyuznogo geograficheskogo obshchestva (for Eygenson). 10. Ministerstvo elektrostantsiy i elektropromyshlennosti SSSR (for Muretov). 11. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova (for Khromov). 12. TSentral'nyy nauchno-issledovatel'skiy gidrometeorologicheskiy arkhiv (for Sokolov, Zolotarev). 13. Gosudarstvennyy okeanograficheskiy institut (for Samoylenko). 14. TSentral'nyy institut prognozov (for Usmanov, Sapozhnikova). 15. Institut geografii Akademii nauk SSSR i TSentral'nyy institut kurortologii (for Chubukov). 16. Nauchno-issledovatel'skiy institut imeni Sechenova, Yalta (for Trotsenko). 17. Arkticheskiy nauchno-issledovatel'skiy institut (for Vangengeym).

(Continued on next card)

FEDOROV, Ye.Ye., professor; PREDTECHENSKIY, P.P., and others.

Discussion of the report (in the form of debates) [of the current state of climatological research and methods of developing it]. Inform.sbor. GUGMS no.3/4:26-154 '54. (Card 3) (MLRA 8:3)

18. Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (for Sokolov). 19. Institut geologii i geografii Akademii nauk Litovskoy SSR (for Styro). 20. Rostovskoe upravlenie gidrometsluzhby (for Temnikova). 21. Morskoy gidrofizicheskiy Institut Akademii nauk SSSR (for Dmitriyev). 22. Vsesoyuznyy institut rasteniyevodstva (for Malyugin). 23. Akademiya nauk Estonskoy SSR (for Liedemaa). 24. Akademiya nauk Armyanskoy SSR (for Bagdasaryan). 25. Leningradskiy gidrometeorologicheskiy institut (for Milevskiy).

(Continued on next card)

FEDOROV, Ye.Ye., professor; PREDTECHENSKIY, P.P., and others.

Discussion of the report (in the form of debates) [of the current state climatological research and methods of developing it]. Inform.sbor. GUGMS no.3/4:26-154 '54. (Card 4) (MLRA 8:3)

26. Gosudarstvennyy gidrologicheskiy institut (for Bochkov). 27. Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (for Uteshev). 28. Upravlenie gidrometsluzhby Armyanskoy SSR (for Nersesyan). 29. Leningradskoye upravleniye gidrometsluzhby (for Mikhaylov, Devyatkova). 30. Tbilisskiy gosudarstvennyy universitet (for Tsomaya). 31. TSentral'naya aerologicheskaya observatoriya (for Shmeter).
(Climatology)

GAVRILOV, V.A.

Diaphanoscopic method for determining the meteorological visibility range at hydrometeorological stations. Meteor.i gidrol. no.9:45-48 S '56. (MLRA 9:11)

(Visibility)

SOV/137-58-8-16225

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 1 (USSR)

AUTHOR: Gavrilov, V.A.

TITLE: Industrial Applications of Ultrasonics (O primenenii ul'trazvuka v promyshlennosti)

PERIODICAL: V sb.: Legkiye metally, Nr 3. Leningrad, 1957, pp 24-31

ABSTRACT: This is a brief presentation of subjects dealing with the industrial applications of ultrasonics for control and intensification of production processes (discovery of cracks and cavities in products, soldering and tinplating of Al, crystallization of melts, ore dressing, determination of internal stresses, etc.)

P.N.

1. Ultrasonic--Applications 2. Industrial production--Equipment

Card 1/1

3(7) PHASE I BOOK EXPLOITATION SOV/2168

Gavrilov, Valentin Aleksandrovich

Prozrachnost' atmosfery i vidimost' (Atmospheric Transparency and Visibility) 2nd ed., rev. and enl. Leningrad, Gidrometeoizdat, 1958. 166 p. 8,000 copies printed.

Resp. Ed.: N. A. Petrov; Ed.: V.D. Pisarevskaya; Tech. Ed.: A.N. Sergeyev

PURPOSE: This book is intended for readers interested in atmospheric visibility problems, namely, meteorologists, pilots, sailors, and the like.

COVERAGE: This book discusses visibility as influenced by the interrelated properties of atmosphere, visual functions of the viewer, and the nature of the object to be viewed. The work describes the instrument techniques used by the Hydrometeorological Service in measuring air transparency. The problem of determining landing visibility during day and night hours is also discussed. V. V. Sharonov, V. A. Berezkin, B. A. Faas, A. A. Gershun, and Ye. S. Kuznetsov are mentioned as contributors to the field. No references are given.

Card 1/5

TABLE OF CONTENTS:

66524

~~3(7)~~ 3.5000

SOV/50-59-11-11/17

AUTHOR: Gavrilov, V. A.

TITLE: A New Method of Determining the Horizontal Transparency of the Atmosphere

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 11, pp 53 - 57 (USSR)

ABSTRACT: A new method of measuring the atmospheric transparency is described. It was developed by the author in 1957. It is simple and offers a high sensitivity. Measurements carried out by this method showed that it was possible to determine the meteorological visibility range at a value of z=100 ÷ 120 and even 150.

$z = \frac{S_M}{L}$, where L denotes the light-beam length and S_M the meteorological visibility range. This method of relative brightness is based on the following principle: Two absolutely black hollow chambers are situated in different intervals along a line of sight. The dimensions of the hollow chambers are chosen in such a way that the closer one is projected on the other larger one. At a high transparency of the atmosphere, the two hollow chambers will flow into each other, and the

Card 1/2

4

A New Method of Determining the Horizontal Transparency of the Atmosphere

closer one will not be visible (Fig 1A). If, however, the slightest haze appears on the more distant hollow chamber, this hollow chamber seems to brighten up, and the black hollow chamber lying nearer will be distinctly visible. The principal presupposition for this method is the condition that the nearer hollow chamber must always be black, i. e. its brightness may be assumed to be equal to zero. In order to show how to obtain the necessary initial conditions, the mode of operation of the IV-GGO-apparatus is explained in brief. The details are described in the previous paper by the author (Ref 1). The nearer black body is made in the form of a black mark produced by means of a special collimator. The design of this collimator was suggested by Professor L. L. Dashkevich. The new method was tested on the photometric polygon of the Glavnaya geofizicheskaya observatoriya (Geophysical Main Observatory) in Voyeykovo, and at the Minskaya geofizicheskaya observatoriya (Minsk Geophysical Observatory). The investigations showed that the new method is more useful than the method of contrasts of landscape objects. There are 3 figures, 2 tables, and 2 Soviet references.

Card 2/2

4

GAVRILOV, V.A., kand.fiz.-mat.nauk

Concept of brightness contrast. Svetotekhnika 5 no.11:13-15 N '59. (MIRA 13:2)

1. Glavnaya geofizicheskaya observatoriya, Leningrad.
(Sight)

GAVRILOV, V.A., kand.fiz.-mat.nauk

Possibility of performing precise visual measurements. Svetotekhnika 6 no.5:9-13 My '60. (MIRA13:12)

1. Glavnaya geofizicheskaya observatoriya, Leningrad.
(Optical measurements)

DASHKEVICH, L.L.; SURAZHSKIY, D.Ya.; USOL'TSEV, V.A.; AZBEL', M.Ye.; BOZHEVIKOV, S.N.; VORZHENEVSKIY, N.S.; MANUYLOV, K.N.; GLAZOVA, Ye.F.; KARPUSHA, V.Ye.; PROTOPOPOV, N.G.; SHADRINA, Ye.N.; IGRUNOV, V.D.; NECHAYEV, I.N.; BESPALOV, D.P.; ILLARIONOV, V.I.; GLEBOV, F.A.; GLAZOVA, Ye.F.; KAULIN, N.Ya.; GORYSHIN, V.I.; GAVRILOV, V.A.; TIMOFEYEV, M.P., retsenzent; YEFREMYCHEV, V.I., retsenzent; KRASOVSKIY, V.B., retsenzent; V'YUNNIK, A.P., retsenzent; STERNZAT, M.S., otv. red.; RUSIN, N.P., otv. red.; YASNOGORODSKAYA, M.M., red.; VOLKOV, N.V., tekhn. red.

[Instructions to hydrometeorological stations and posts] Nastavlenie gidrometeorologicheskim stantsiiam i postam. Leningrad, Gidrometeoroizdat. No.3. Pt.3. [Meteorological instruments and observation methods used on a hydrometeorological network] Meteorologicheskie pribory i metody nabliudenii, primeniaemye na gidrometeorologicheskoi seti. 1962. 295 p. (MIRA 15:5)

(Continued on next card)

DASHKEVICH, L.L.---- (continued) Card 2.

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. 2. Glavnaya geofizicheskaya observatoriya Nauchno-issledovatel'skogo instituta gidrometeorologicheskikh priborov i Gosudarstvennogo gidrologicheskogo instituta (for Dashkevich, Surazhskiy, Usol'tsev, Azbel', Bozhevikov, Vorzhenevskiy, Manuylov, Glazova, Karpusha, Protopopov, Shadrina, Igrunov, Nechayev, Bespalov, Illarionov, Glebov, Glazova, Kaulin, Gorysnin, Gavrilov). 3. Komissiya Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR (for Nechayev, Usol'tsev, Timofeyev, Yefremychev, Krasovskiy, V'yunnik)
(Meteorology)

GAVRILOV, V.A.

Improved variant of the relative luminosity method (method of two black bodies). Trudy GGO no.125:3-10 '62. (MIRA 15:6)
(Meteorological optics)

GAVRILOV, V.A.

Magnitude of the threshold of contrast sensitivity of the eye in the expression for the meteorological visibility range. Trudy GGO no.125:11-19 '62. (MIRA 15:6)
(Meteorological optics)

GUSHCHIN, Gennadiy Petrovich; GAVRILOV, V.A., otv. red.; KAPITANETS, Ye.P., red.; ALEKSEYEV, A.G., tekhn. red.

[Study of atmospheric ozone] Issledovanie atmosfernogo ozona. Leningrad, Gimizd. 1963. 266 p. (MIRA 16:10)
(Ozone)

ACCESSION NR: AT4042069 S/2531/64/000/153/0018/0023

AUTHOR: Gavrilov, V. A.; Gory*shin, V. I.

TITLE: Determination of landing visibility at airports

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 153, 1964. Voprosy* atmosfernoy optiki (Problems in atmospheric optics), 18-23

TOPIC TAGS: meteorology, aviation meteorology, visibility, visibility range, atmospheric optics, landing visibility

ABSTRACT: Landing visibility S_{ldg} is a term applied to the maximum possible distance to the beginning of an airstrip at which a descending pilot at a time of poor visibility can see and identify the beginning of the strip. During the daytime the numerical value of S_{ldg} is dependent on the state of atmospheric transparency, expressed through the meteorological range of visibility S_M and the photometric (brightness) properties of the airstrip and the background surrounding it. The numerical value S_{ldg} also is influenced by the brightness of haze or fog and the airman's vision. The theory of the range of visibility of objects, as applicable to landing visibility, takes all these factors into account in the equation

Card 1/4 3

ACCESSION NR: AT4042069

$$S_{max} = 0{,}66\, S_M \lg \frac{\frac{K_0}{\varepsilon} + \frac{B}{B_0} - 1}{\frac{B}{B_0}}. \qquad (1)$$

Here S_M is the meteorological range of visibility, $\frac{K_0}{\varepsilon}$ is the coefficient of visibility of the landing strip on a particular background (in the absence of haze) representing the ratio of the value K_0 of true contrast between the landing strip and the surrounding background to the value ε -- the threshold of contrast sensitivity of the eye, B/B_0 is the ratio of the brightness of haze or fog in the layer of equal range of visibility to the brightness of the landing strip. However, landing visibility in fact is not determined by this method at Soviet airports; airmen are informed only of the meteorological range of visibility. This value (S_M) is determined by a transparency recorder. The authors discuss the means by which the other parameters in the formula are determined. S_{ldg} can be determined by use of a nomogram; preparation of the nomogram is described, a specific example is cited, and a sample nomogram is illustrated. It is shown how significantly S_{ldg} differs from S_M. In order to facilitate use of this concept of landing visibility the authors propose a special system of marking airstrips, as shown in Fig. 1 of the Enclosure. Discussion of the numerous advantages of such marking is followed by consideration of the determination of landing visi-

Card 2/4

ACCESSION NR: AT4042069

bility at nighttime; particular attention is given to the visual properties of landing lights on the airstrip. Orig. art. has: 3 formulas and 2 figures.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 00 ENCL: 01

SUB CODE: ES NO REF SOV: 002 OTHER: 000

Card 3/4

ACCESSION NR: AT4042070 S/2531/64/000/153/0024/0027

AUTHOR: Gavrilov, V. A.

TITLE: Modernization of a visibility meter for use in measurements by the relative brightness method

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 153, 1964. Voprosy* atmosfernoy optiki (Problems in atmospheric optics), 24-27

TOPIC TAGS: meteorology, atmospheric optics, meteorological instrument, photometry, visibility, visibility measurement, relative brightness method

ABSTRACT: A new method has been developed for the measurement of atmospheric visibility by the relative brightness method. The theory of this method was previously described by the author (Svetotekhnika, No. 5, 1960). The method is superior to classical methods. For example, in the range of contrasts from 100 to 94%, the relative measurement errors are 0.2-0.9% and increase to several percent for contrasts from 70 to 93%. These accuracies are maintained for objects of any color, so that the method can be used for a wide range of purposes. The author now describes a modernized optical photometric system for visibility measurement; this instrument is shown schematically in Fig. 1 of the Enclosure. In this Figure I, II and III denote the collimator, wedge unit and sighting tube,

Card 1/5

ACCESSION NR: AT4042070

respectively. The collimator is designed to produce a black mark in the telescope field of view, and consists of two identical objectives 1a and 1b, separated from one another by approximately double the focal length. The objective 1a can be moved by a screw for a distance of several millimeters along the optical axis of the instrument so that there will be clear images in the focal plane of the sighting tube of objects at distances of 0.5 m to infinity from the instrument. The objective 1b is fixed in the collimator and there is a collector lens 2 in its focal plane; this objective consists of two planoconvex lenses, on one of the plane surfaces of which there is an etched black mark. As a result of this design, when observations are made in the eyepiece 4, there will be clear images of both some terrain object and the black mark. Component II, the photometric part of the instrument, has an optical wedge 3. In the initial position, when the wedge completely covers the entrance pupil of the sighting tube, only the image of a part of the landscape will be visible in the field of view, including the selected object with the superposed mark. When the wedge is moved away from the entrance pupil a second identical image will appear, formed by rays passing through the part of the objective not covered by the wedge. The first image will be displaced from the second by an angle equal to the angle of the wedge. With the rotation of the entire instrument on its optical axis, the first image will rotate around the second, successively coinciding with a particular part of the surrounding background. Relative measurements of the first and second images is possible by linear movement of the optical wedge relative to the entrance pupil of the sighting tube. In

Card 2/6

ACCESSION NR: AT4042070

another passage of the wedge unit there is a seven-power sighting tube, consisting of the objective 1c (similar to the objectives of the collimator) and a short focal length eyepiece from a standard leveling instrument. A direct image of the observed object can be seen in the field of view. The diaphragms and inner walls of the instrument are blackened. The exit pupil of the instrument is 1.7 mm, which completely eliminates the appearance of photometric parallax. The instrument can be used in the field or laboratory. An experimental consignment of these instruments was manufactured in 1961; Fig. 2 of the Enclosure is a photograph of such an instrument. Improvements made in 1963 resulted in a small portable instrument weighing about 500 grams. Orig. art. has: 2 figures.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00 ENCL: 02

SUB CODE: ES NO REF SOV: 002 OTHER: 000

Card 3/5

ACCESSION NR: AT4042070

ENCLOSURE: 01

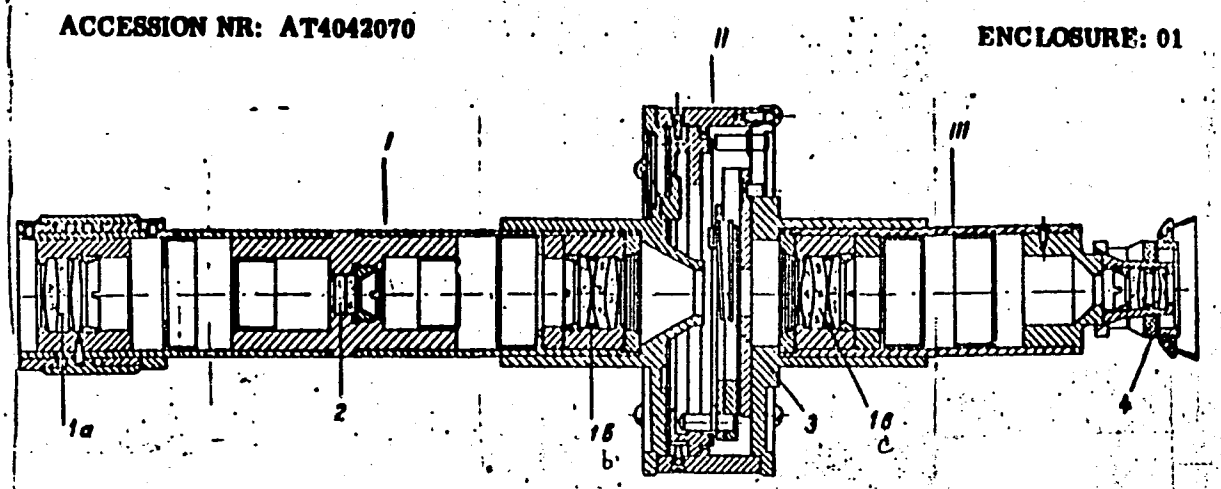


Fig. 1 - Optical and mechanical parts of the visibility meter designed by the Main Geophysical Observatory.

Card 1 1 4/5

ACCESSION NR: AT4042070

ENCLOSURE: 02

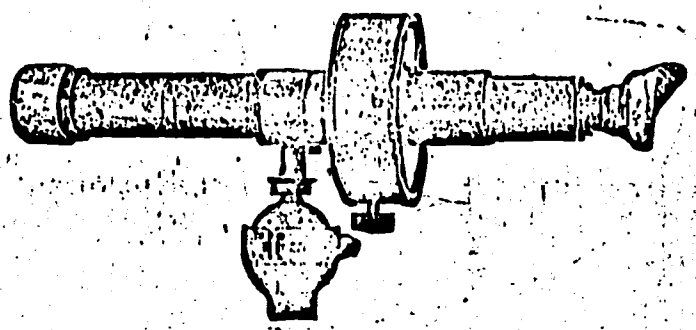


Fig. 2 - General view of the visibility meter (1961 model)

Card 5/5

GAVRILOV, V.A.; KOVALEV, V.A.

Use of the backscattering principle in measuring horizontal and nonhorizontal atmospheric transmissivity. Trudy GGO no. 153: 28-55 '64. (MIRA 17:9)

L 38158-66 EWT(m)/T DJ

ACC NR: AP6025666 SOURCE CODE: UR/0413/66/000/013/0133/0133

INVENTOR: Vedernikov, V. V.; Gavrilov, V. A.; Grachev, V. I.

ORG: none

TITLE: Mechanical lock for aircraft actuating cylinders. Class 47, No. 183560

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 133

TOPIC TAGS: aircraft power equipment, aircraft control equipment, aircraft actuating equipment

ABSTRACT: An Author Certificate has been issued for a mechanical lock for aircraft actuating cylinders, which consists of a cylinder with a rod locked in it by the use of a split collar supported by the shaft of a spring-supported floating piston with an annular groove. To avoid the influence of the working pressure on the split collar and to reduce the wear of the friction couple (split ring/cylinder), by locking the floating piston in a certain position relative to the rod, it is equipped with an auxiliary lock, e.g., a ball-type, consisting of a socket with balls which fall into an annular groove of the floating piston under the action of a cleaving socket. [KT]

SUB CODE: 01, 13/ SUBM DATE: 31Dec64/ ATD PRESS: 5044

Card 1/1 MLP UDC: 621.83.629.13.01

VASILENKO, A.O. [Vasylenko, A.O.]; GAVRILOV, V.D. [Havrylov, V.D.]

M.V.Lomonsov, initiator of technical development. Nar.z ist. tekh. no.7:3-12 '61. (MIRA 15:2)
(Lomonsov, Mikhail Vasil'evich, 1711-1765)

GAVRILOV, V.D.; BOTTE, O.V.

The Second Ukrainian Conference of Young Scientists. Visnyk AN USSR 28 no.5:53-58. My '57. (MLRA 10:7)
(Ukraine--Technology)

GAVRILOV, V D.

25(2) PHASE I BOOK EXPLOITATION SOV/3165

Kuyun, Oleksandr Iosyfovich [Aleksandr Iosifovich], and Vitaliy Dmitriyevich Gavrylov [Gavrilov]

Mashinobuduvannya Ukrayiny i vnesok uchenykh Akademiyi nauk UKrSSR i yogo rozvytok (Machine Building in the Ukraine, and the Contribution of Scientists of the Academy of Sciences, UkrSSR, to Its Development) Kyyiv, Vyd-vo AN UKrSSR, 1958. 43 p. 1,000 copies printed.

Sponsoring Agency: Akademiya nauk UKrSSR.

Chief Ed.: A.O. Vasylenko [Vasilenko] Academician, Academy of Sciences, UKrSSR; Ed. of Publishing House: I.F. Shtul'man; Tech. Ed.: I.D. Mil'okhin.

PURPOSE: This booklet is intended for the general reader.

COVERAGE: The booklet describes the development of the machine-building industry in the Ukraine during the Soviet regime. Achievements of Ukrainian machine builders, cooperation between Institutes of the Department of

Card 1/2

KOLESOV, L.V.; GAVRILOV, V.D. [Havrylov, V.D.]

Scientific and technical conference of Kiev industrial enterprises on questions of the introduction of advanced technological methods, improvement of product quality, and lowering of the cost of products. Visnyk AN URSR 29 no.9:77-80 S '58. (MIRA 11:11)
(Kiev--Industry)

28(0)
AUTHORS: Kuyun, A. I., Gavrilov, V. D. SOV/30-59-1-10/57

TITLE: Scientists in the Ukraine Striving for Technical Progress (Uchenyye Ukrainy v bor'be za tekhnicheskiy progress)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 1, pp 77-80 (USSR)

ABSTRACT: In the present article, the authors report on the progress made in different fields of engineering. The Institut stroitel'noy mekhaniki Akademii nauk Ukrainskoy SSR (Institute of Building Mechanics, Academy of Sciences, UkrSSR) attained results in the examination of dynamic strength of machine parts, the phenomena of fatigue of material, impact effect, vibrations, friction and wear. The Institut elektrosvarki im. Ye. O. Patona (Institute of Electric Welding imeni Ye. O. Paton) introduced a new method of automatic high-speed welding by means of fluxes. The Institut teploenergetiki (Institute of Thermal Energetics) designed calculation methods for rotor-cooling of gas turbines. The Institut metallokeramiki i spetsial'nykh splavov (Institute of Metal Ceramics and Special Alloys) worked out methods which enable complicated alloys to be obtained by the pressing and sintering of powders. The Institut elektrotekhniki (Electrotechnical Institute) designed powerful generators with

Card 1/2

super-high frequencies for continuous service. Measuring apparatus for geophysical prospecting work were designed. The devices ESK-1 and KSR-5 are manufactured in series by the "Geologorazvedka" Works in Leningrad. The Institut gornogo dela im. M. M. Fedorova (Institute of Mining imeni M. M. Fedorov) designed a new means of transport in the open-work mining of raw material deposits, in the form of trolley cars. The institutions of the Otdeleniye tekhnicheskikh nauk Akademii nauk USSR (Section of Technical Sciences, Academy of Sciences UkrSSR) keep close contact with engineering works. The solution of the automation-problem of manufacturing processes during the next years is provided for. The Institut liteynogo proizvodstva (Institute of Foundry Production) was newly established in 1958 within the system of the AS UkrSSR.

GAVRILOV, V.D. [Havrylov, V.D.]; MATIYKO, M.M.; KHILOBOCHENKO, L.S. [Khylobochenko, L.S.]

First rural hydroelectric power plants in the Ukraine. Nar.z ist.tekh. no.5:112-144 '59. (MIRA 13:5)
(Ukraine--Hydroelectric power stations)

KHRISTICH, Zakhar Dem'yanovich; MOROZENKO, Semen Nikitovich; RODIN, P.R., kand.tekhn.nauk, retsenzent; GAVRILOV, V.D., inzh., red.; ONISHCHENKO, N.P., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[Sharpening of metal-cutting tools; manual for grinders] Zatochka rezhushchego instrumenta; uchebnoe posobie dlia rabochikh-zatochnikov. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 169 p. (MIRA 13:12)

(Metal-cutting tools)

LEVASHOV, Anatoliy Yevgen'yevich; LOMSADZE, Yu.M., dotsent, otv.red.; GAVRILOV, V.D., red.; MOROZ, S.M., tekhn.red.

[Elementary particles] Elementarnye chastitsy. Kiev, Izd-vo Kievskogo univ. Pt.1. 1960. 135 p. (MIRA 14:2)
(Particles (Nuclear physics))

GAVRILOV, V. D. [Havrylov, V.D.]; KHILOBOCHENKO, L.S.

History of the utilization of the water power of small rivers in the Ukraine. Mat. z ist. tekh. no.6:23-39 '60. (MIRA 13:11)
(Ukraine--Water resources development)

KUCHEROV, Panteleymon Stepanovich; GAVRILOV, Vitaliy Dmitriyevich; KOVALENKO, L.D., red.

Andrii Over'ianovich Vasylenko. Kyiv, Naukova dumka, 1964. 41 p. (MIRA 18:2)

GAVRILOV, Viktor Gavrilovich

[Cultivation of fruits and berries] Agrotekhnika plodovykh i iagodnykh kul'tur. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1956. 269 p. (MLRA 10:2)

(Fruit culture) (Berries)

USSR/Cultivated Plants. Fruits. Berries. M

Abs Jour: Ref Zhur-Biologiya, No 5, 1958, 20482.

Author : V.G. Gavrilov
Inst : Not given.
Title : Peculiarities in the Development of Root Sucker Varieties of Apple. (Osobennosti razvitiya korneotpryskovykh sortov yabloni).

Orig Pub: Agrobiologiya, 1956, No 4, 125-128.

Abstract: The dwarf species and varieties of apples having root suckers are listed and characterized. The features of the root sucker formation in the Chulanovka apple are described. Root suckers which have not reached the soil surface by fall, did not pass through the quiescent period, and transplanted into sand boxes in a light chamber, they began to blossom in about

Card : 1/2

USSR/Cultivated Plants - Fruits. Berries. M-6

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30022

Author : Gavrilov, V.G.

Inst :

Title : Several Features of the Vegetational Reproduction of the Chulanovka Variety Apple.

Orig Pub : Agrobiologiya, 1957, No 3, 143-145

Abstract : The Chulanovka, distributed throughout the North West Zone of the USSR, is distinguished by its frost resistance, length of life, early fruit-bearing and its capacity to reproduce by root shoots. The best method of reporduction is by vertical layering with the preliminary hilling of the bushes with peat.

Card 1/1

BOGORAD, Lazar' Moiseyevich; GAVRILOV, Viktor Gavrilovich, kand.sel'skokhoz. nauk; GORYACHEVA, Yevgeniya Petrovna, kand.sel'skokhoz.nauk; LIKHONOS, Fedor Dmitriyevich, doktor sel'skokhoz.nauk; MIKHAYLOV, Ivan Gavrilovich; PETROV, N.P., red.; MOLODTSOVA, M.G., tekhn.red.

[Manual for orchard foremen on collective and state farms of the non-Chernozem zone] Spravochnik brigadira-sadovoda; kolkhozov i sovkhozov nechernozemnoi polosy. Izd.2. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 398 p. (MIRA 14:1)
(Fruit culture)

GAVRILOV, V.I.; LABENETS, V.F.; MASHKEVICH, N.G., kand.sel'skokhoz.nauk

[Model norms for working out scientifically tested methods for making long-range and annual plans for the development of agriculture on collective and state farms of Ryazan Province] Primernye normativy dlia razrabotki nauchno-obosnovannykh sistem vedeniia perspektivnykh i godovykh planov razvitiia sel'skogo khoziaistva v kolkhozakh i sovkhozakh Riazanskoi oblasti. Moskva, 1960. 233 p. (MIRA 13:7)

1. Ryazanskaya oblast'. Upravleniye sel'skogo khozyaystva. 2. Otdel razmeshcheniya i spetsializatsii Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for Gavrilov, Labenets, Mashkevich).
(Ryazan Province--Agriculture)

CHEN' SHI-SYUN' [Ch'ên Shih-hsün]; MITBREYT, B.A. [translator]; GAVRILOV, V.G. [translator]; VITVITSKIY, G.N., red.; MIKHAYLOV. A., red.; KHAR'KOVSKAYA, L., tekhn. red.

[The climate of China. Translated from the Chinese] Klimat Kitaia. Moskva, Izd-vo inostr. lit-ry, 1961. 343 p. (MIRA 14:6)
(China--Climate)

LYAN ZHEN'-TSAY [Liang, Jen-ts'ai]; KHUAN MYAN' [Huang, Mien]; SHEN' VEY-CHEN [Wei-ch'eng]; GAVRILOV, V.G.[translator]; KOTOV, A.V.[translator]; KOTOVA, A.F.[translator]; SUN' TSZIN-CHZHI[Sun Ching-chih], red.; CHERNOZHUKOV, K.N., red.; MIKHAYLOV, A.F., red.; BELEVA, M.A., tekhn.red.

[Southern China]IUzhnyi Kitai. Otvet. red. Sun, Ching-chih. Moskva, Izd-vo inostr. lit-ry, 1962. 389 p. (MIRA 15:8)
(China, Southern--Economic geography)